California Power Authority

Public Leadership Solutions For Energy (PULSE)

An Innovative Energy Loan Fund

- ✓ ***Stretches funding to enable cost and energy savings***
- ✓ ***Turnkey financing team to facilitate implementation***
- ✓ ***Financing available to all State and local agencies & 501(c)3 corporations***
- ✓ ***Increased flexibility for terms and eligible projects compared to existing State energy financing programs***

In its mission to invest in long-term, reliable, clean energy for our State's future, the California Power Authority offers a new financing solution.

PULSE offers public agencies tax-exempt financing to manage energy needs and costs. This loan fund provides flexible terms to a range of energy efficiency and clean on-site power generation technologies. Participating agencies will have access to transactions larger than those offered by other State energy loan programs.

Financing Structure:

Lease financing enables cost and energy savings without a requirement to obtain a public vote

Financing Team:

- Sponsor/Program Administrator: California Power Authority
- Financial Advisor: Public Financial Management, Inc.
- Bond Underwriter: Goldman, Sachs & Co.
- Bond Counsel: Sidley Austin Brown & Wood LLP

Eligible Projects:

Virtually all energy conservation and clean generation technologies

Loan amounts:

$2 million or more per issuance, per borrower (district-wide portfolios of projects are included), unlimited loan size

Repayment periods:

Up to the expected life of the project

Estimated Availability:

Two to three issuances per year

Program Marketing Partners:

Technology providers, engineering firms, energy service companies

For more information please visit the California Power Authority's website:

www.capowerauthority.ca.gov
Phone: (916) 651-9750
Email: cpapublicloans@dgs.ca.gov

STATE OF CALIFORNIA

CONSUMER POWER AND CONSERVATION FINANCING AUTHORITY

October 30, 2002

Dear Colleague:

We invite cities, counties, special districts, schools and community colleges across California, as well as State and other local agencies to **take advantage of the "PUblic Leadership Solutions for Energy (PULSE)" fund to help manage your energy needs and costs**. This new loan pool overcomes limitations of other State energy loan programs by supporting larger transactions, a broader range of eligible technologies, and longer loan terms.

We would be interested in your expression of interest as to whether you might use this loan program in the next 1-2 years. PULSE will issue bonds several times each year and your response will help us gauge the size of future energy bond issues. This does not commit your organization to borrowing funds.

The PULSE Fact Sheet provides more specifics on the loan program. Also attached is a sample Expression of Interest, a few Threshold Questions to provide some project specific information, as well as sample case studies. Additional information, including responses to Frequently Asked Questions, is available on the PULSE website at www.capowerauthority.ca.gov/financing/PULSE.html.

I invite your consideration of this proposed program and welcome your expression of interest, as well as any suggestions or changes that you might propose. Specific questions can be directed to Jeanne Clinton, PULSE project manager, at (916) 651-9750 or to cpapublicloans@dgs.ca.gov.

Sincerely,

Jeanne Clinton
Deputy Director Conservation & Distributed Generation

901 P Street, Suite 142A, Sacramento, CA 95814
Tel: (916) 651-9750 Fax: (916) 651-9595 E-mail: cpapublicloans@dgs.ca.gov

Public Leadership Solutions For Energy (PULSE)

FACT SHEET

Mission: The California Consumer Power and Conservation Financing Authority (the "Power Authority" or CPA) was created by the State Legislature in August 2001. Its mission is to furnish the citizens of California with reliable and affordable electrical power, ensure sufficient power reserves for a stable energy market, and encourage energy efficiency, conservation and renewable energy resources. Our Energy Resource Investment Plan targets up to $1.5 billion in financing energy investments in public buildings.

Eligible projects:

- Energy efficiency
- Advanced building metering and controls
- Thermal storage
- On-site renewable energy (solar PV, small scale wind, biogas and landfill gas recovery)
- On-site distributed generation (fuel cells, micro-turbines, combined heat & power)
- Incremental costs of exceeding Title 24 building energy standards in new construction and major renovations (for "green" or "sustainable" buildings)

Loan amounts: $2 million or more per issuance, for a portfolio of projects within a jurisdiction, no maximum.

Repayment periods: Up to the expected useful life of the project.

Financeable costs: Feasibility and engineering design, performance guarantees, equipment warranties, project management (managing bidding, equipment procurement, construction management, and commissioning the final outcome), and equipment and construction costs.

Financing Terms and Options:

- Tax-exempt market rates: short-term (1-5 years), about 3%; medium-term (6-15 years) ranging from 3-4.5%; longer-term (16-30 years) from 4.5-5.5%, up to projects' useful life.
- Fixed debt rates; future issuances may offer variable rate terms.
- Maturities flexible, consistent with borrower's project and cash flow needs.
- Normal requirements for use of assets financed with tax-exempt debt (i.e., cannot do anything that would jeopardize the tax status of the bonds).
- Bonds will be insured.
- The program will be self-supporting: no interest subsidies or "free" services are included, although agencies may finance most project-related costs.
- Agencies still can claim rebates, "buydowns", and grants from other sources.
- Anticipated multiple (e.g., semi-annual) bond issues, depending on demand.
- Utilize the Power Authority's "eligible bidders lists" and indicative price caps from distributed generation technology manufacturers, contractors, and system integrators. (See: http://www.capowerauthority.ca.gov/DistributedGeneration).

For Additional Information:
(916) 651-9750/cpapublicloans@dgs.ca.gov/ www.capowerauthority.ca.gov/financing/PULSE.htm

SAMPLE

Expression of Interest in the California Power Authority
PUblic Leadership Solutions for Energy (PULSE) Fund

[On your letterhead, or via E-mail to cpapublicloans@dgs.ca.gov]
[If your project plans are well along, please see additional information desired, on the next page.]

[date]

Ms. Jeanne Clinton
Deputy Director Conservation & Distributed Generation
California Power Authority
901 P Street, Suite 142A
Sacramento, CA 95814

Dear Ms. Clinton,

The _____(name of your jurisdiction) supports the California Power Authority's (CPA) proposed PUblic Leadership Solutions for Energy fund.

We would be interested in participating in a lending program offering tax-exempt interest rates and repayment terms conducive to investing in energy efficiency, renewable energy, and distributed generation technologies.

In the next 1-2 years, we estimate a need for approximately $_____ to invest in such projects. Ideally, we would like to utilize
$_____ million in proceeds by _____, 2003 and/or
$_____ million by _____, 2004.
We would be interested in utilizing the CPA's PULSE Fund for this purpose.

We do___ / do not__ have a published credit rating. This is _____.

The CPA currently indicates the rate will be fixed. We would / would not be interested in a variable rate if that were an option.

We look forward to working in partnership with the CPA and the State of California to make our government's energy use more efficient, cleaner, and cost-effective.

Sincerely,

Name
Title
Phone Number
Email address

Public Leadership Solutions For Energy (PULSE)

If your project plans are well along, and you are considering using our financing in the next 3-6 months**,** we invite you to provide the following additional information in your response letter or E-mail. This will help us evaluate your projects' eligibility and address other issues relevant to a successful financing.

I. Financial Information

1. Have you issued bonds for capital facilities within the past 2 years? How much? When?
2. Do you have a published credit rating? What is the most recent rating?

II. PULSE Funding

1. Why are you interested in PULSE funding specifically?
2. Have you explored other financing mechanisms, and to what extent? Which?
3. If you were unable to fund the project, can you tell us why?

III. Approval Process -- What is your agency's authorization process?

1. Who makes financial decisions?
2. Who makes energy/facilities decisions?
3. What Board/Council/Commission approvals are required?
4. Who makes the final decision and who is authorized to sign financial/legal documents?

IV. Timing Issues

1. Can you give us an idea of your project's readiness (feasibility studies, design, preliminary approvals, etc.)?
2. Do you have an idea how long your internal approval process might take?
    a. Which "sign-off" issues do you have in hand?
    b. Which need to happen?
    c. When will these occur?
3. What are your assumptions about when the project will be built (assuming funding is pending)
    a. When will you order/pay for equipment?
    b. When would construction begin?
    c. When do you anticipate the need to access funds? In what magnitude and for what purposes?

V. What additional information do you need from CPA?

1. Additional information and responses to Frequently Asked Questions are on our web site, www.capowerauthority.ca.gov/financing/PULSE.htm.
2. Do you have any preliminary questions not already addressed?

Thank you for submitting your interest in the PULSE loan fund. We are enthusiastic about this exciting new financing option and anticipate a productive working relationship with public agencies.

SAMPLE CASE STUDY

Alameda County – Santa Rita Jail

Alameda County implemented a three-phase plan in 2000 to reduce energy costs at the Santa Rita Jail by combining on-site solar electric generation with energy conservation and energy management measures. The partnership, including the County, PowerLight and CMS Viron, set a goal of exceeding the County's 10% internal rate of return for energy projects. The project components have reduced the Jail's peak power consumption by 30%. These measures include:

- Solar Photovoltaic (PV). The 1.18 megawatt PV roof installation is the U.S.' largest rooftop solar PV system and the fourth largest solar electrical system in the world.
- Cool Roof Membrane. The roof area not covered by PV panels was treated with a coating to reflect 65% of the solar energy, reducing the roof's temperature during summer months by 50 degrees Fahrenheit; this will substantially extend the roof's lifetime.
- Cooling Equipment Replacement. An 850-ton high efficiency chiller with variable speed drives delivers real-time cooling requirements to the chiller, water pumps, and cooling towers.
- Energy Management System. A software system automatically reduces peak power consumption during dips in solar-generated electricity; to manage the facility's maximum demand for power delivered to the grid.

Energy Savings. The Santa Rita Jail project diverts over 2.4 million kilowatt-hours from the grid annually. The 1.18 megaWatt PV roof installation generates about 1,460,000 kilowatt-hours and the cool roof, chiller, and other upgrades save an additional 1,000,000 kilowatt-hours.

Economic Savings. Gross project costs for the project, including roof repairs were about $9 million. The combination of State rebates and low-interest loans enabled the County to avoid general fund expenditures. Net savings to the County should be approximately $410,000 in 2002 or about $15 million over the project's 25-year life.

Other Benefits. The project will eliminate almost 38,000 tons of carbon dioxide and 24,000 pounds of nitrogen oxides over the project's life.

Prior Projects. The County previously implemented smart energy measures, including retrofitting over 12,000 light fixtures, and installing lighting controls and efficient motors at the Jail, with a payback of less than one year. By participating in PG&E's PowerSaving Partners program, the County has received over $2.3 million in direct incentive payments and reduced electricity costs at the jail by one-third.

At other Alameda County facilities, energy efficiency measures implemented have totaled over $4 million in annual cost avoidance. These measures included lighting retrofits in 95% of County-owned buildings, installing building automation systems in 25 facilities, replacing most chillers with energy efficient and CFC-friendly equipment, and installing variable frequency drives to the heating, ventilation and air conditioning systems in County facilities.

SAMPLE CASE STUDY

City of San Diego – The Ridgehaven Building, Environmental Services Department (ESD)*

The City of San Diego's ESD has undertaken multiple innovative energy-related projects. Ridgehaven, ESD's Administrative headquarters, is a "Green Buildings" project and was the first Energy Star Building designated by the U.S. Department of Energy and the Environmental Protection Agency. Projects include energy efficiency, indoor air quality, water conservation, construction waste reduction, and the use of recycled-content products.

Energy Savings. The Ridgehaven building saves 931,000 kilowatt-hours annually.

Economic Savings. Site energy cost savings are about $130,000 per year at current costs.

Other Benefits. The Green Building at Ridgehaven annually eliminates 353 tons of carbon dioxide and saves more than 485,300 gallons of water.

City of San Diego – Sustainable Building Policy*

City purchasing policies require energy star equipment and emphasize the importance of energy savings. This policy also provides an administrative incentive for City facilities to meet LEED standards. All city facilities have undergone lighting retrofits and staff has been trained in conservation measures. Preliminary energy audits have been completed on 20 City buildings, with energy improvements targeted for another 891,000 square feel of floor space.

Energy Savings. Lighting and equipment upgrades in over 2.5 million square feet provide estimated savings of 52 million kWh per year.

Economic Savings. Annual savings from building lighting and efficient equipment improvements are about $2.8 million.

Other Benefits. Carbon dioxide reductions from the combined city operations' projects were over 82,000 tons during the 1994-2001 time period.

Incentives utilized. California Energy Commission grants contributed to financing projects.

*The City of San Diego has developed many innovative energy savings, conservation and clean, distributed generation programs. Several additional projects are in the implementation or development stage. These are two examples of existing projects.